New EVR Driver Status

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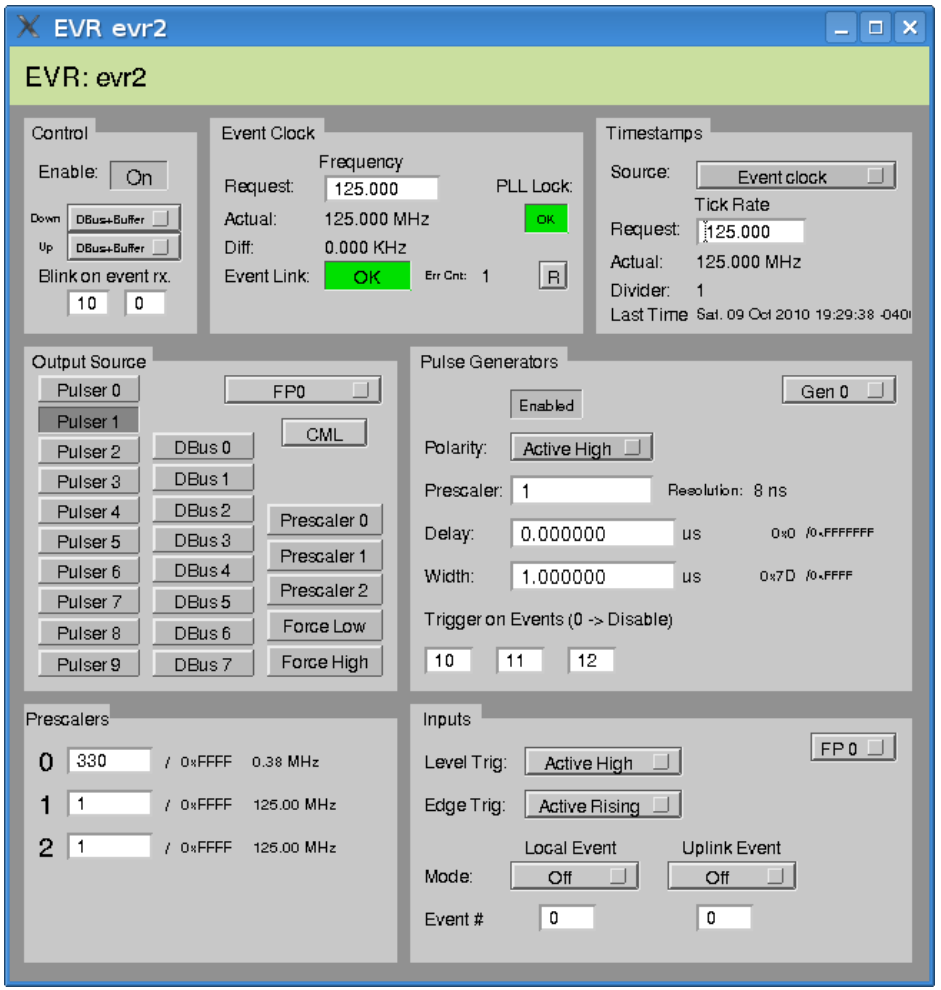
Device Setup

- Simple setup for PCI and VME
- DB templates provided for all tested cards

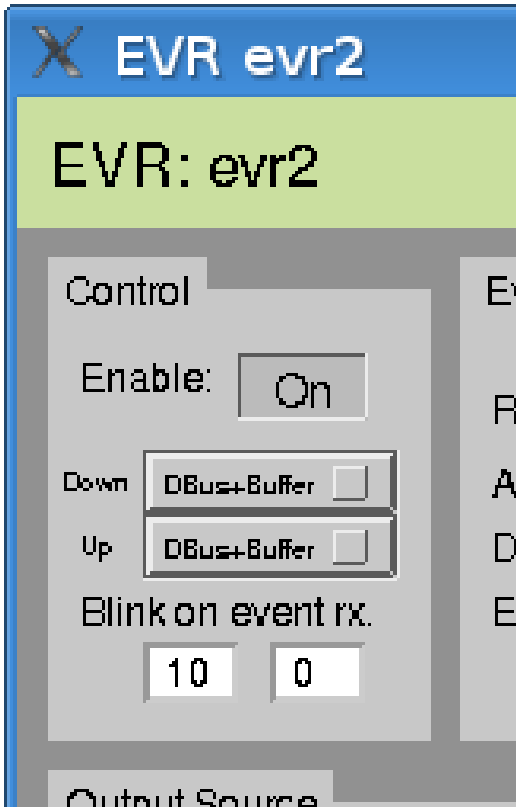
```
mrmEvrSetupPCI(0,1,2,0)
mrmEvrSetupVME(1,5,0x20000000,3,0x26)
dbLoadRecords("db/evr-pmc-230.db","P=evr1:,C=0")
dbLoadRecords("db/evr-vmerf-230.db","P=evr2:,C=1")
```

EVR Expert Displays



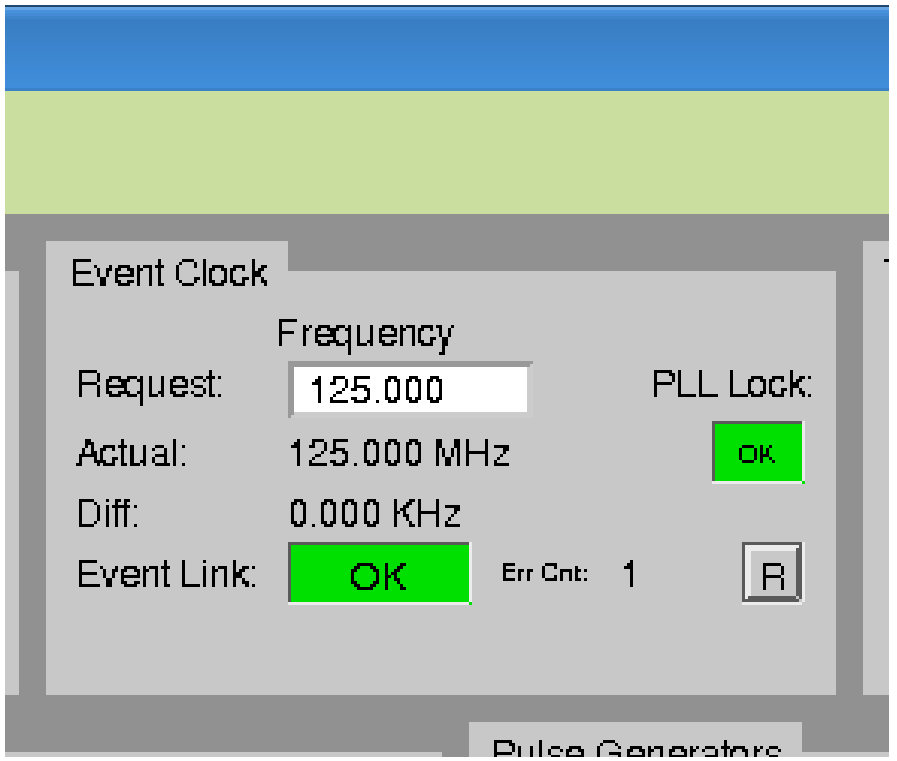
- Controls Event link
- Time-stamping
- Output mapping
- Pulse generators
- Prescalers (dividers)
- Local Inputs

Device Controls



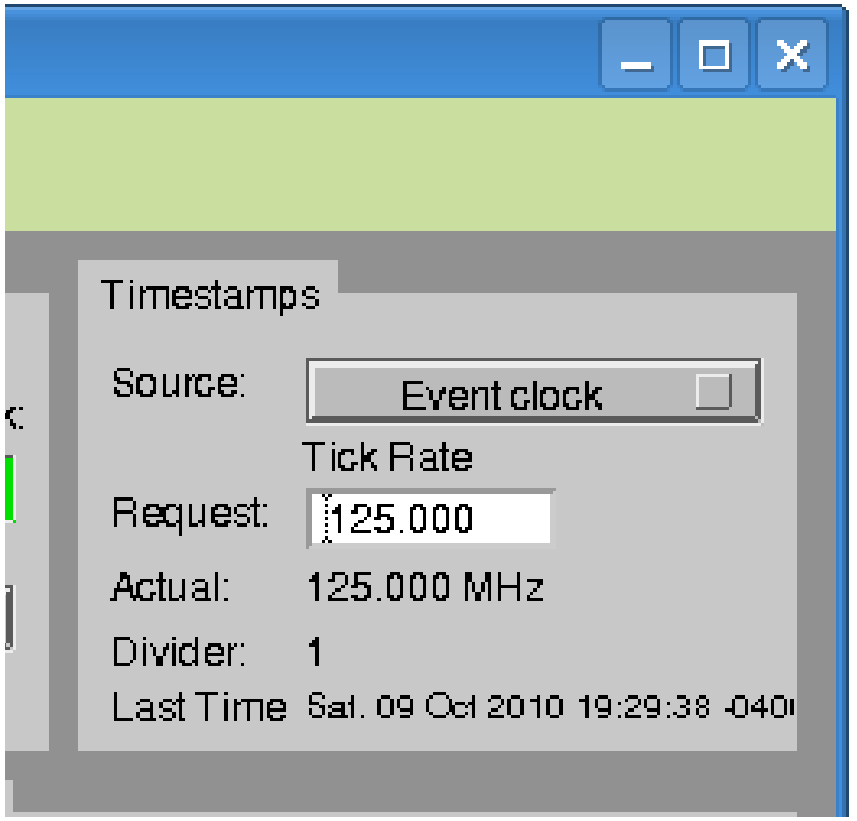
- Master Enable
- Event Link data modes
  - Dbus+Buffer
  - Dbus only
  - Up and down links
- Two LED blink mappings

Event Clock



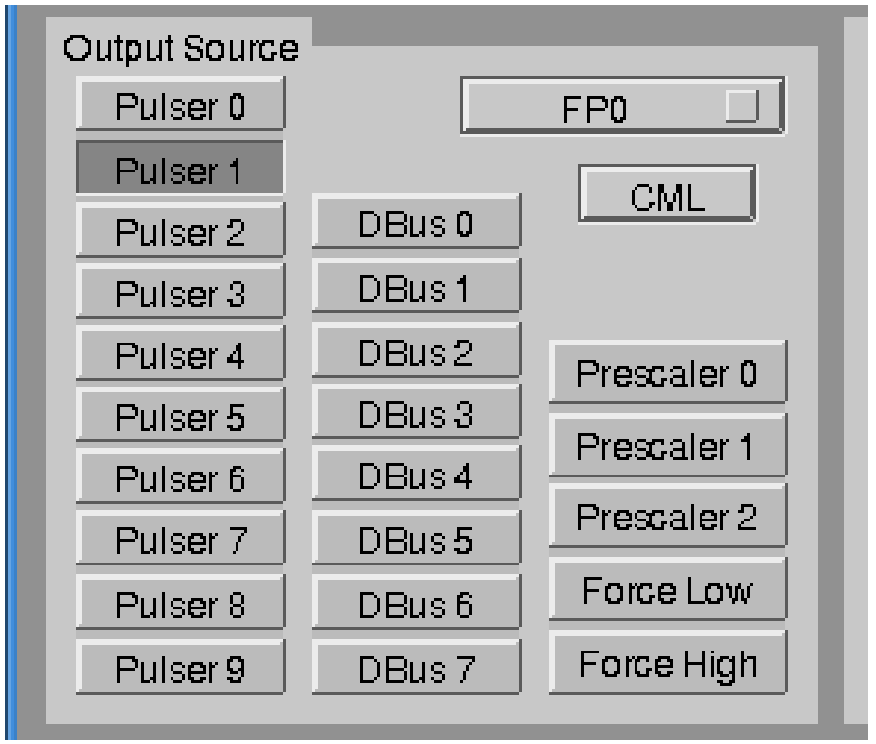
- Setting and readback of EVR's local oscillator
- PLL status
- Event Link status

Timestamp Controls



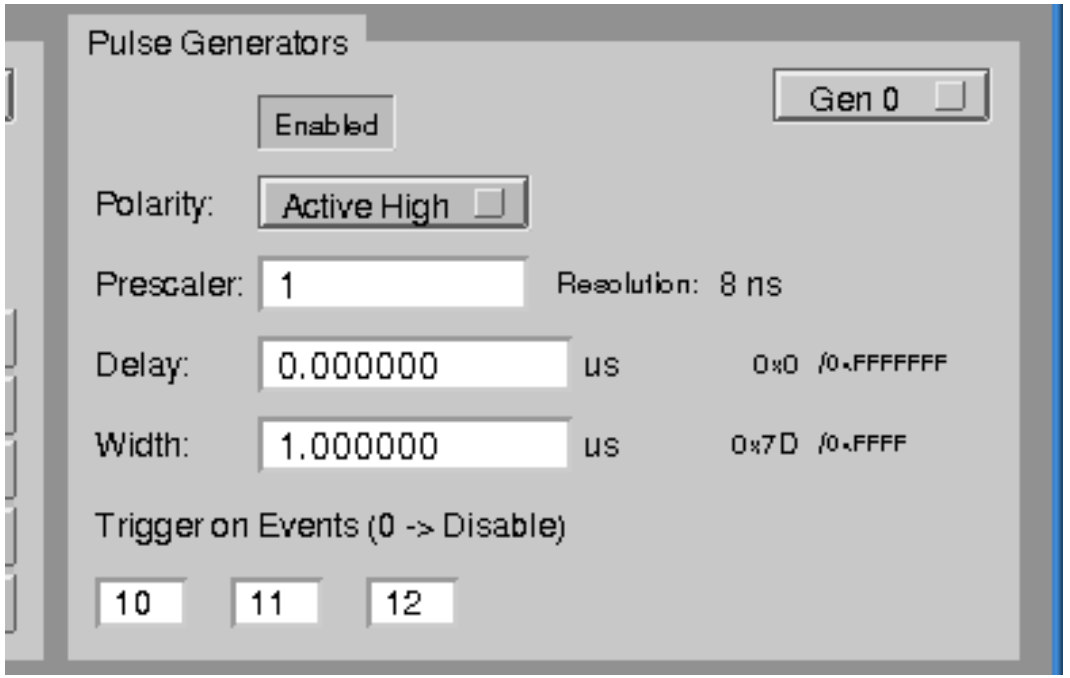
- Source: Clock, Dbus, or event code
- TS Clock rate
- Current time

Output Mapping



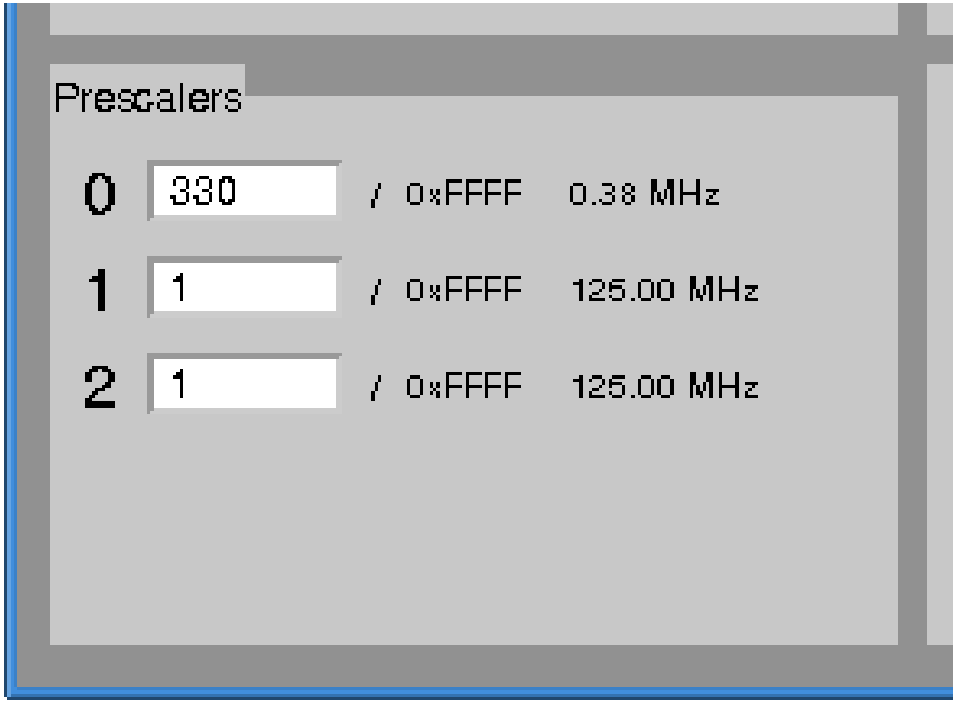
- For all outputs
  - CML has more options
- Connect each output to a source

Pulse Generator



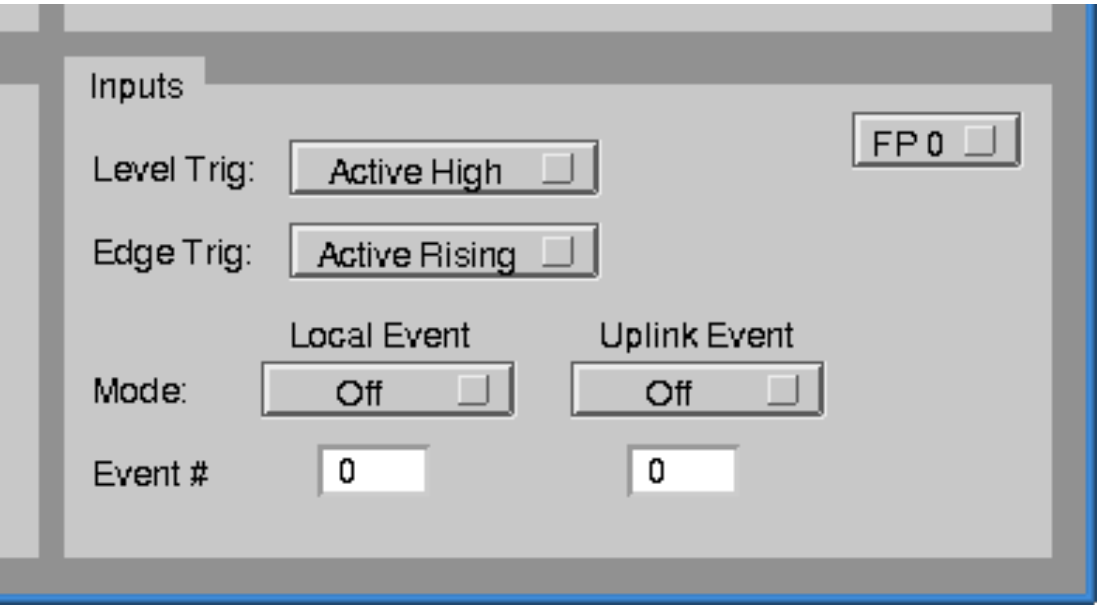
- Controls pulse shape
- Sets mapping(s)
  - Default template gives each PG 3 trigger events.
  - Adding more is easy

Prescaler



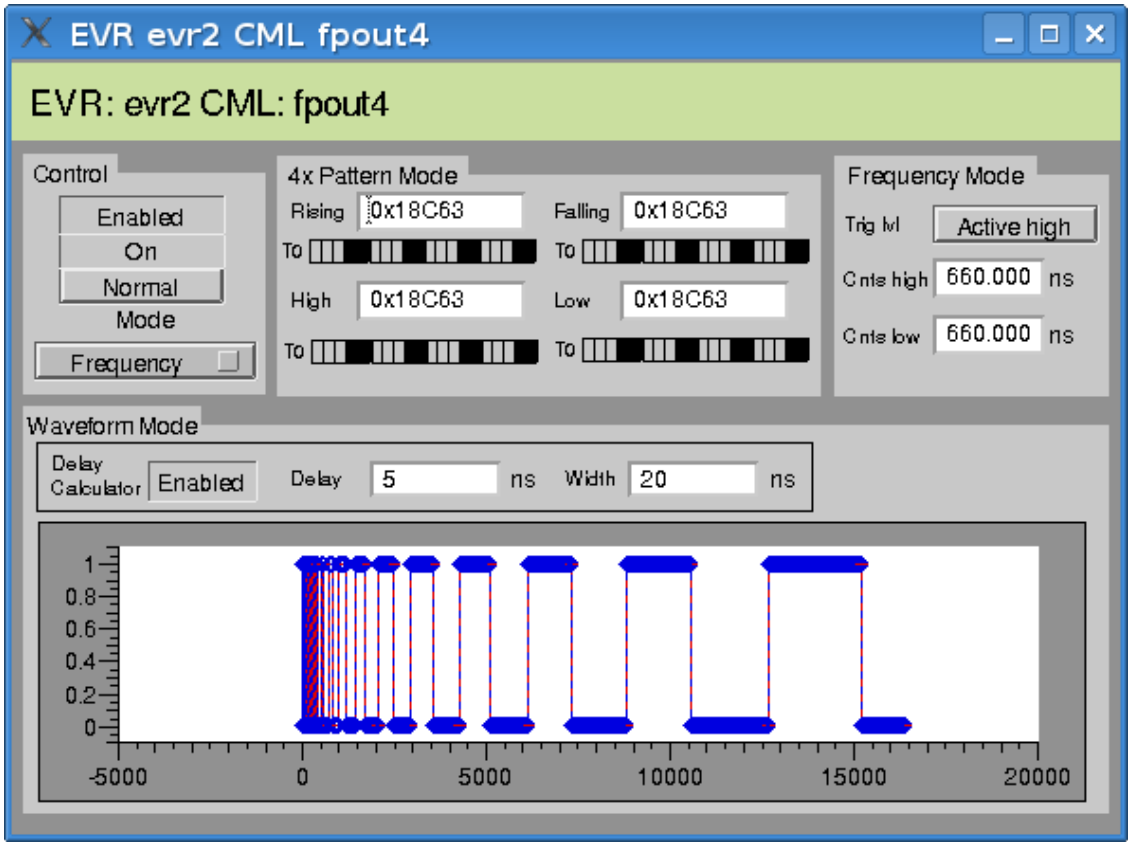
- Integer divider on Event Clock

Local Inputs



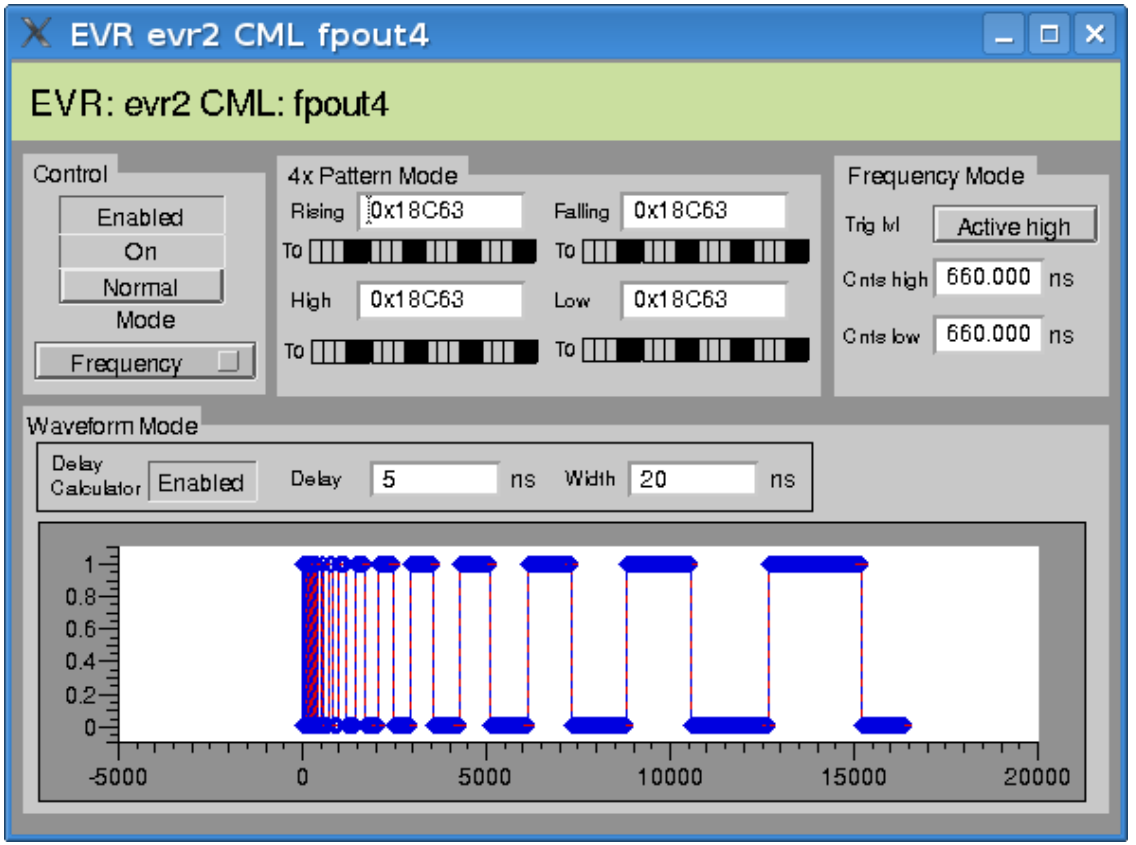
- Each input can send an event+dbus upstream
- Or apply an event locally (trigger or TS)

CML



- Faster (400 ps) resolution
- Three mode
  - 4x20 bit Pattern
  - Frequency (new)
  - Waveform (new)
    - 40,940 bit arbitrary pattern

CML Demo



- NSLSII LINAC has 10 Hz rep rate, length 1.6us
- MRF EVRTX used to drive E-Gun
- Test updating CML pattern at 10 Hz
- Use Sequencer to update

Conclusion

- What is missing?